



## MATERIAL SAFETY DATA SHEET

*Supersedes:* May 20, 2004  
*Date of Issue:* June 28, 2004

MSDS N°: FEOX/US01

### SYNTHETIC IRON OXIDES

#### SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Company Identification:**

**Name:** NUBIOLA Inc.  
**Address:** 6369 Peachtree Street  
Norcross, GA 30071  
**Tel. Number:** 770-338-4990

**FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT:**

**In the continental U.S., call:** 770-277-4990  
**For additional non-emergency information, call:** 770-277-8819

**Product Name:**

Synthetic Iron Oxides

**Synonyms:**

Iron Oxide Yellow, Iron Oxide Red, Iron Oxide Black, Iron Oxide Brown (Blend)

**Chemical formula:**

FeO·(OH), Fe<sub>2</sub>O<sub>3</sub>, FeO·Fe<sub>2</sub>O<sub>3</sub>

#### SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Percent</u>	<u>CAS Number</u>	<u>RTECS Number</u>
Iron Oxide Yellow Pigment Yellow 42 C.I. 77492	100	51274-00-1	---
Iron Oxide Red Pigment Red 101 C.I. 77491	100	1309-37-1	---
Iron Oxide Black Pigment Black 11 C.I. 77499	100	1317-61-9	---

#### SECTION 3 - HAZARDS IDENTIFICATION

**A YELLOW TO BLACK SOLID THAT POSES LITTLE OR NO IMMEDIATE HAZARD.**

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#### SECTION 3 – HAZARDS IDENTIFICATION (CONTINUED)

##### Potential Health Effects

1. **Skin:** May cause slight irritation.
  2. **Eyes:** May cause slight irritation.
  3. **Inhalation:** Avoid breathing dust.
  4. **Ingestion:** May be harmful if swallowed
  5. **Chronic information:** n.a.
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#### SECTION 4 – FIRST AID MEASURES

##### **SEEK IMMEDIATE MEDICAL ATTENTION FOR ALL CASES OF OVEREXPOSURE**

**Skin:** Immediately wash skin with plenty of soap and water for at least 15 minutes. Remove dirty clothes and shoes and thoroughly clean before reuse.

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Seek medical attention.

**Inhalation:** Remove to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

**Ingestion:** Never give anything by mouth to an unconscious person. Do not induce vomiting unless directed to do so by a physician.

**Note to Physician:** Treat symptomatically and supportively.

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#### SECTION 5 – FIRE FIGHTING MEASURES

	Synthetic Iron Oxide
<b>Flammability Properties:</b>	<b><i>Non-combustible. Not considered to be a fire hazard.</i></b>
<b>Flash Point / Method:</b>	No information available.
<b>Flammability Limits (in air % by volume)</b>	No information available.
<b>LEL:</b>	No information available.
<b>UEL:</b>	No information available.
<b>Auto ignition Temperature:</b>	No information available.
<b>Hazardous Combustion Products:</b>	n.a.
<b>Extinguishing Media:</b>	Water, dry chemical foam, or alcohol-resistant foam.
<b>Firefight instructions:</b>	As in any fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

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#### SECTION 6 – ACCIDENTAL RELEASE MEASURES

**General Information:** Wear appropriate personal protective equipment as specified in Section 8.

**Spills / Leaks:** Take up and containerize any spills for reclamation or disposal. US CERCLA Regulations require reporting spills and releases to soil, water, and air in excess of reportable quantities.

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#### SECTION 7 – HANDLING AND STORAGE PROCEDURES

**Handling:** Avoid breathing dust. Wash thoroughly after handling. Keep container tightly closed. Wear appropriate personal protective equipment as specified in Section 8.

**Storage:** Store in a tightly closed container in a cool, dry location away from incompatible substances.

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#### SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

**Respiratory Protection:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements for European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

**Skin Protection:** Wear appropriate protective clothing and gloves to prevent skin exposure.

**Eye Protection:** Wear appropriate protective eyeglasses or chemical safety goggles to prevent eye exposure.

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#### Exposure Limits

#### OSHA Final PEL's

OSHA Standard, 8 hour TLV (Total Dust): 10 mg/m<sup>3</sup>

### SECTION 9 – PHYSICAL / CHEMICAL PROPERTIES

<b>Physical state</b>	Solid
<b>Appearance</b>	Yellow, Orange, Red, Brown or Black
<b>Odour</b>	Odourless
<b>Ph</b>	Not applicable
<b>Vapour Pressure (mm Hg)</b>	Not applicable
<b>Vapour Density (Air=1)</b>	Not applicable
<b>Solubility in Water</b>	Insoluble
<b>Specific Gravity/Density</b>	4.10 g/cm <sup>3</sup> (water = 1) (Yellow) 4.90 g/cm <sup>3</sup> (Red) 4.60 g/cm <sup>3</sup> (Black)

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#### SECTION 10 – STABILITY AND REACTIVITY DATA

**Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Dust generation, excess heat, combustible materials, and moisture.

**Incompatibility:** n.a.

**Hazardous Decomposition Products:** None

**Hazardous Polymerization:** None

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#### SECTION 11 – TOXICOLOGICAL INFORMATION

**LD<sub>50</sub> (oral)** > 10 g/kg (rats)

**Chronic / Carcinogenicity:** no human carcinogen

**Teratology:** no teratogenic

**Reproduction:** no toxic for reproduction

**Mutagenicity:** no mutagenic

**Other Studies:** no information available

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#### SECTION 12 – ECOLOGICAL INFORMATION

**Environmental Fate:** This material is not expected to biodegrade when released into the soil. This material is not expected to significantly bioaccumulate.

LC<sub>50</sub> (fish) >10000 mg/kg

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#### SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of containers and contents in accordance with all local, state, and Federal requirements.

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#### SECTION 14 – TRANSPORTATION INFORMATION

##### D.O.T

**Proper Shipping Name:** Not applicable.

**Hazard Class/I.D. No./Packing Group:** Not applicable.

**Label:** Not applicable.

**Additional Information:** Not applicable.

##### I.M.O./I.M.D.G.

**Proper Shipping Name:** Not applicable.

**Hazard Class/I. D. No. /Packing Group:** Not applicable.

**Label:** Not applicable.

**Additional Information:** Not applicable.

##### I.C.A.O./I.A.T.A.

**Proper Shipping Name:** Not applicable.

**Hazard Class/I. D. No. /Packing Group:** Not applicable.

**Label:** Not applicable.

**Additional Information:** Not applicable.

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## SECTION 15 – REGULATORY INFORMATION

### U.S. FEDERAL REGULATIONS

**TSCA Section 8 (b):** CAS showing in Section 2 listed on TSCA inventory.

**SARA title III Section 302 Extremely Hazardous Substances (EHS):** Since Iron Oxides are not EHS and no Threshold Planning Quantity is established, its presence in quantities at or above TPQ does not require any Emergency Planning Notification under 40 CFR Part 355.

**SARA title III Section 304 CERCLA Hazardous Substances:** Releases in quantities equal to or above their Reportable Quantity are not subject to any Emergency Notification, as no reportable quantity is established under 40 CFR Part 302.

**SARA title III Sections 311 / 312:** No reporting (Tier I or Tier II) shall be submitted by the facility under 40 CFR Part 370.

### Physical Hazards

Fire: None  
Sudden Release of Pressure: None  
Reactivity: None

### Health Hazards

Immediate (Acute): None  
Delayed (Chronic): None

**SARA title III Section 313 Toxic Chemicals:** No reporting for routine annual toxic chemicals release shall be submitted under 40 CFR Part 372.

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**SYNTHETIC IRON OXIDES****FDA**

Iron Oxides are cleared in 21 CFR:

- Part 178 under §178.3297 (Colorants for Polymers)
- Part 177 under § 177.2600 (Colorants in Rubber Articles intended for repeated Use)

**State Regulations**

Iron Oxides do not appear on the following state Right to Know lists:

California Proposition 65  
New Jersey RTK Hazardous Substance List  
Pennsylvania Hazardous Substances List  
Florida Toxic Substance List  
Massachusetts Hazardous Substance List  
Michigan Critical Materials Register  
Minnesota Hazardous Substance List

**Others**

Canadian Environmental Protection Act Domestic Substances List (**DSL**)  
Australian Inventory of Chemical Substances (**AICS**)  
**CONEG**-Developed Model Toxics in Packaging Legislation

**European Directives**

Directive 94/62/EEC: EU Directive on Packaging and Packaging Waste;  
comparable to US CONEG Legislation  
Resolution AP 89 (I): use of colorants in plastic materials and articles that may  
come into contact with foodstuffs.  
Directive 2004/73/EC (last amendment of Dir. 67/548/EEC): Iron Oxides are not  
listed in Annex I (Dangerous Substances)

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#### **SECTION 16 – OTHER INFORMATION**

To the best of our knowledge, the information contained herein is accurate. However, neither Nubiola, Inc. nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. The possibility exists that the EU will not recognize this MSDS due to the fact that several components of the MSDS are reflective of ANSI Z-400.1-1998. Although ILO (International Labour Organization) has adopted ANSI Z-400.1-1998, ultimate disposition lies with the competent authority.

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